

**THE EFFECTS OF iSeed SEED COATING
TREATMENT ON THE GERMINATION
AND ESTABLISHMENT OF FOUR
AMENITY GRASS SPECIES WITH AND
WITHOUT A PRE-SEEDER FERTILISER
APPLICATION**

For

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**DATA SUMMARY ON THE EFFECTS OF iSeed SEED COATING TREATMENT
ON THE GERMINATION AND ESTABLISHMENT OF FOUR AMENITY GRASS
SPECIES WITH AND WITHOUT A PRE-SEEDER FERTILISER APPLICATION**

SUMMARY

This report describes an investigation of the effects of iSeed seed treatment and seedbed fertiliser on the establishment and early growth of four amenity grass species; perennial ryegrass (Sauvignon), smooth-stalked meadow-grass (Limousine), slender creeping red fescue (Cezanne) and browntop bentgrass (Manor). The establishment of grasses followed expected trends with perennial ryegrass being fastest and smooth-stalked meadow-grass slowest to establish. The red fescue and browntop bentgrass were intermediate between these extremes. Seedbed fertiliser increased establishment and growth. The iSeed treatment either on its own or in combination with seedbed fertiliser also increased establishment and growth. However, these effects tended to be a little more marked where seedbed fertiliser was not applied. It is concluded that iSeed treatment could reduce the risk of poor establishment in different amenity situations.

INTRODUCTION

iSeed is a patented seed coating treatment that is designed to improve nutrient utilisation by the plant during its early stages of growth. For this study, funded by DLF-Perryfields Ltd, the effect of iSeed seed coating treatment on the establishment and early growth of four amenity grass species (perennial ryegrass, smooth-stalked meadow-grass, red fescue and bentgrass) was examined with and without a pre-seeder fertiliser application.

MATERIALS AND METHODS

Experimental design and management

A trial to evaluate the effect of iSeed seed coating treatment on the germination and establishment of four amenity grass species; perennial ryegrass (Sauvignon), smooth-stalked meadow-grass (Limousine), slender creeping red fescue (Cezanne) and browntop bentgrass (Manor) with and without the use of a pre-seeder fertiliser application was established in the STRI trial grounds (NGR SE 095 391; altitude 200 m) on 21 September 2006.

The iSeed seed coating treatment process is designed to coat each individual seed with a number of nutrients making them readily available to the plant during the early establishment phase of its life. However, the seed coating does have the effect of increasing the weight of each individual seed as compared to a non-treated seed. To ensure that the numbers of seeds sown per unit area were very similar for both the untreated and treated seeds of each grass

species, the average weight (g) of 1000 seeds was calculated. This information was used to adjust the seeding rate for the iSeed treated seed to give a comparable number of seeds per plot to the untreated seed. The sowing rates of untreated and iSeed treated seeds for each of the four grass species are presented in Table 1.

In addition to examining the effect of iSeed seed coating treatment on the germination and establishment of each of the four grass species the effect of using a pre-seeder fertiliser (8:12:8) N:P₂O₅:K₂O at a rate of 35 g m⁻² was also examined giving a total of 16 different treatments. To enable comparisons to be made among the different variables (grass species, iSeed seed coating treatment and fertiliser) the trial was designed as a three-way factorial with three complete replications giving a total of 48 plots to assess. Plot size was 1 m x 1 m. A full list of treatments is presented in Table 2.

TABLE 1

Seeding rates for the untreated and iSeed treated seed in the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species.

Grass species	Seeding rate	
	Untreated	Treated with iSeed
Perennial ryegrass (Sauvignon)	25 g m ⁻²	50 g m ⁻²
Smooth-stalked meadow-grass (Limousine)	30 g m ⁻²	59 g m ⁻²
Slender creeping red fescue (Cezanne)	35 g m ⁻²	68 g m ⁻²
Browntop bentgrass (Manor)	8 g m ⁻²	15 g m ⁻²

All plots were sown by hand at the rates given for each species (with and without the iSeed treatment) in Table 1 with the pre-seeder fertiliser being added to the appropriate plots at the time of sowing.

TABLE 2

Treatments structure for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species.

Grass species	Treatment
Perennial ryegrass	Sauvignon plus iSeed seed treatment plus pre-seeder fertiliser
	Sauvignon plus iSeed seed treatment
	Sauvignon plus pre-seeder fertiliser
	Sauvignon
Smooth-stalked meadow-grass	Limousine plus iSeed seed treatment plus pre-seeder fertiliser
	Limousine plus iSeed seed treatment
	Limousine plus pre-seeder fertiliser
	Limousine
Browntop bentgrass	Manor plus iSeed seed treatment plus pre-seeder fertiliser
	Manor plus iSeed seed treatment
	Manor plus pre-seeder fertiliser
	Manor
Slender creeping red fescue	Cezanne plus iSeed seed treatment plus pre-seeder fertiliser
	Cezanne plus iSeed seed treatment
	Cezanne plus pre-seeder fertiliser
	Cezanne

Weekly mowing commenced on 16 October 2006 at a cutting height of 30 mm. The height of cut was reduced on 6 November to 25 mm. A further reduction in mowing height to 20 mm was made on 27 November 2006. The trial was then mown, as required, at this height until the trial ended in January 2007. Due to the warm temperatures that occurred during the autumn/early winter of 2006 grass growth continued until the end of the year. Because of this, and after consultation with DLF-Trifolium Ltd, an additional application of a low nitrogen fertiliser (4:6:8) N:P₂O₅:K₂O at a rate of 35 g m⁻² was applied to the trial area on 21 December 2006.

Experimental assessments

Set out below are descriptions of the measurements and assessments that were made on the trial between September 2006 and January 2007. These measurements and assessments were all made in accordance with the appropriate STRI Standard Operating Procedures. Copies of all relevant STRI Standard Operating Procedures are presented in Appendix 1.

An assessment of the early establishment of turf (germination) was made three times per week starting on 28 September 2006 when emergence of the first shoots was seen. The last assessment was made on 16 October 2006 just prior to the trial being mown for the first time (SOP no. 301598). Grass cover measurements were made using two different methods. 1) A measure of relative grass cover was made using the STRI's reflectance ratio meter (SOP no. 301499). The reflectance ratio meter measures the relative intensities of reflected light at wavelengths of 650 and 750 nm. As green vegetation affects the reflectance of light in the 650 nm wave band but not in the 750 nm band, the ratio of the reflected light at these two wavelengths is proportionally affected by the amount of live vegetation in the field of view. 2) A Spectrum Field Scout CM1000 Chlorophyll Meter. This meter works by producing an index of reflected light produced by the ratio of red (700 nm) to far-red light (840 nm). Work completed in America (Mangiafico and Guillard 2005) has found this index to be highly correlated to the chlorophyll content of turf. Five measurements were made per plot using this meter and the average value for the five measurements was recorded. Grass cover measurements started on 29 September 2006 and were made twice weekly until the trial was first mown on 16 October. The frequency of measurement was then dropped to once per week until the last measurements were made on 4 December 2006. Turf quality was assessed, by subjective visual assessment, using a 1 – 10 scale (SOP no. 1B0703), weekly from 2 October until 28 November 2006 and then monthly from December 2006 until January 2007. Sward height (SOP no. 1B1499) was measured prior to the first cut on 16 October 2006 and then weekly (weather permitting) until 29 January 2007. Colour was measured three times during the course of the trial in November and December 2006 and January 2007 using a Minolta CR-310 Chroma meter (SOP no. 300998). Root length was measured at the end of the trial in February 2007 (SOP no. 1B0699). In addition the dry weight of the roots was also measured at this time. To do this three soil cores were removed from each of the plots. The cores were placed in a bowl of water and soil was removed from the rooting system. The roots and root fragments were then oven dried before being weighed.

RESULTS

Before presenting the results it is important to consider the statistical design of this experiment. The study was set out as a three-way factorial design with three complete replications. In this design variation can be partitioned to examine differences among the main effects (grass species, iSeed treatment and seedbed fertiliser) and the different combinations of main effects. These types of trial can appear to be more complicated than

they really are. In brief the statistical procedure employed first tests how strongly the differences measured were associated with grass type, iSeed treatment or seedbed fertiliser. This provides a guide to how the results were influenced by these different factors. The next step is to examine how combinations of the different main effects influenced the results obtained. At this level of the analysis significant results indicate that differences observed could not simply be explained by grass type, iSeed seed treatment or seedbed fertiliser. When the interaction of treatments are examined there are three possible two-way combinations (grass and iSeed treatment, grass and seedbed fertiliser and iSeed treatment and seedbed fertiliser). Finally it is possible to analyse all combinations of the three treatments together. Generally with this type of study the differences tend to be explained by the main effects and the first order interactions (two-way combinations). This was also the case for this study and, as a consequence of this, no results are presented for the three-way combination of treatments.

Results for each measurement/assessment are summarized below. The results themselves are presented in tabular form following this summary. All data collected were analysed using an appropriate analysis of variance. Statistically significant variation, at the 5% level of probability ($P < 0.05$), is shown by the calculation of a least significant difference (LSD). Data that were not found to be statistically significant (n.s.) have also been included in the presentation of the results.

Early establishment of turf (germination)

The early establishment of turf (germination) was first assessed on 28 September 2006 when emergence of the first shoots was seen on the trial. Assessments were then made three times per week with the final assessment being made on 16 October 2006 when mowing commenced on the trial. Results for the main effects of the early establishment of turf are presented in Table 3 and those for the two-way interactions are presented in Table 4.

Main effects (grasses, iSeed, fertiliser)

The grasses varied in rate of establishment with perennial ryegrass being quicker to establish than the other three species. The smooth-stalked meadow-grass established the slowest with the red fescue and bentgrass being intermediate (bentgrass quicker than red fescue).

There was little overall difference between the with and without iSeed treatment. However, there was some indication of a positive effect of the iSeed treatment towards the end of the establishment phase.

From the middle of the assessment period the inclusion of seedbed fertiliser was found to have a small positive effect on establishment.

Two-way interactions

There was little or no positive or negative interaction between grass species and iSeed or grass species and seedbed fertiliser. There was some indication that iSeed had a positive effect on establishment where seedbed fertiliser had not been applied.

Ground cover

Ground cover was assessed using two different methods; the STRI's reflectance ratio meter and a Spectrum Field Scout CM1000 Chlorophyll Meter. Ground cover, using both meters, was first measured on 29 September 2006. Measurements were then made twice weekly until the trial was first mown on 16 October. The frequency of measurements was then dropped to once per week until the last measurements were made on 4 December 2006.

Results for the main effects of reflectance ratio are presented in Table 5 and those for the two-way interactions in Table 6. Results for the main effects of the Spectrum Field Scout CM1000 Chlorophyll Meter are presented in Table 7 and those of the two-way interactions in Table 8.

Reflectance ratio main effects (grasses, iSeed, fertiliser)

The values produced by the reflectance ratio meter provide a quick way to assess live ground cover. This would have been affected by establishment rates during the early stages of the trial. It will also be affected by differences in growth rates and mowing (from 16 October onwards) during the later stages of the assessment period.

For the grasses the reflectance ratio values follow the same trends as the establishment scores. In this regard the initial increase in values for the perennial ryegrass was more rapid than for the other three grass species. The smooth-stalked meadow-grass had the lowest values on most assessment dates.

iSeed was found to have a positive effect on reflectance ratio values from roughly two weeks after establishment was first seen. This effect was largely maintained for the remainder of the reflectance ratio assessment period.

The addition of seedbed fertiliser was found to produce higher reflectance ratio values for the majority of the measurements made. This effect became apparent just prior to those seen due to the iSeed treatment (week before).

Reflectance ratio two-way interactions

No significant interactions were found between grass species and iSeed treatment. However, there was a marked interaction between grass species and the addition of seedbed fertiliser. Initially all the grasses appeared to benefit from seedbed fertiliser. However, this effect was longer lived and more dramatic for the slower establishing grasses, red fescue, bentgrass and smooth-stalked meadow-grass.

Few significant results were found for the interaction between iSeed and seedbed fertiliser. However, where they were found iSeed significantly increased reflectance ratio values where seedbed fertiliser had not been applied.

Spectrum Field Scout CM1000 Chlorophyll Meter main effects (grasses, iSeed, fertiliser)

This instrument provides similar information to the reflectance ratio meter but uses different wavelengths of reflected light. We are currently evaluating this instrument with a view to using it as a replacement for the reflectance ratio meter.

Results from the Spectrum Field Scout CM1000 chlorophyll meter follow similar trends to the reflectance ratio meter. However, there is some indication that the chlorophyll meter was better able to discriminate among the different treatments and combinations of treatments within the study.

Initial variation among grasses indicated markedly quicker establishment for perennial ryegrass. Establishment was slower overall for the smooth-stalked meadow-grass. As found with the reflectance ratio measurements establishment of the red fescue and bentgrass were intermediate between these extremes. Once mowing started the variation among the grass

species declined. Indeed, during the later stages of the assessment period values for red fescue and bentgrass matched or exceeded those for perennial ryegrass. This probably reflected variation in plant cover (density) of the finer leaved grass species. The smooth-stalked meadow-grass had the lowest chlorophyll values throughout the assessment period.

iSeed had a marked positive effect on chlorophyll values from approximately two weeks after initial establishment was seen. This effect was maintained throughout the remainder of the assessment period.

The addition of seedbed fertiliser had a similar positive effect as the iSeed treatment. However, this was apparent in the week prior to that noted for iSeed.

Spectrum Field Scout CM1000 Chlorophyll Meter two-way interactions

Few significant interactions between grass type and iSeed were found. Where they did occur (two occasions for perennial ryegrass and one for red fescue) the iSeed had a positive effect on measured chlorophyll values.

In contrast highly significant interactions between grass type and fertiliser were found. In the early measurements they were most marked for the perennial ryegrass and bentgrass. Over time the variation for the perennial ryegrass declined. However, this was not the case for the bentgrass, which was still showing a marked positive effect of seedbed fertiliser at the end of the assessment period. Positive and long lasting effects of seedbed fertiliser were also found for the red fescue and smooth-stalked meadow-grass.

Turf quality

Turf quality was assessed weekly from 2 October to 28 November 2006 and then monthly from December 2006 until January 2007. Results for the main effects of turf quality are presented in Table 9 and those for the two-way interactions in Table 10.

Main effects (grasses, iSeed, fertiliser)

Throughout the study the turf quality tended to be highest for the bentgrass. The perennial ryegrass was second ranked initially but was overtaken or matched by the red fescue during the mid to later stages of the study. Turf quality was consistently lower for the smooth-stalked meadow-grass than for the other three grass species (for all assessments made).

Apart from the first and second assessments iSeed had a significant positive effect on turf quality. This was still apparent at the end of the study.

Like the iSeed seedbed fertiliser had a long lasting positive effect on turf quality.

Two-way interactions

Although there were positive main effects there were few, if any, additional significant interactions found between grass type and iSeed or iSeed and fertiliser.

There were, however, some significant differences between grass species and seedbed fertiliser. In these the effects of the with fertiliser treatment were positive but tended to exclude perennial ryegrass.

Sward height

Sward height was first measured prior to the trial being mown for the first time on 16 December 2006 and then weekly until 29 January 2007. Results for the main effects of sward height are presented in Table 11 and those for the two-way interactions in Table 12.

Main effects (grasses, iSeed, fertiliser)

Some overall variation in growth was observed among the different grasses. For the first four to five measurements the perennial ryegrass tended to have the most growth between cuts. After this period perennial ryegrass, red fescue and the bentgrass tended to have reached fairly similar heights when measured. The smooth-stalked meadow-grass never reached the final mowing height of 20 mm during the study.

The overall effect of iSeed was an increase in growth, as reflected by the height measurements. The addition of seedbed fertiliser had a similar effect.

Two-way interactions

There were few significant interactions between grass species and iSeed or grass species and fertiliser. The interactions that were significant occurred during the early stages of the assessment period and were more frequent for the grass/fertiliser interaction. The significant effects that were found (iSeed and seedbed fertiliser increased growth) tended to be restricted to the bentgrass and perennial ryegrass.

No significant interactions were found between fertiliser and iSeed (after the positive main effects have been taken out).

Colour

Colour was measured three times during the course of the trial using a Minolta CR-310 Chroma meter. Measurements were made in November and December 2006 and January 2007. The greenness (a*) and yellowness (b*) values obtained for the main effects are presented in Table 13 and those for the two-way interactions in Table 14.

Main effects (grasses, iSeed, fertiliser)

Significant variation in colour among grasses were measured. In the first measurement (November 2006) the marked difference was between the smooth-stalked meadow-grass (less green and less yellow) and the other grass species. In the following two measurements (December 2006 and January 2007) the bentgrass had higher greenness (a*) and yellowness (b*) values than the other grasses. The smooth-stalked meadow-grass continued to define the lower end of the scale.

The main effect of iSeed was to increase greenness (a*) but not effect yellowness (b*) on all three-measurement dates.

The inclusion of seedbed fertiliser was found to increase both greenness (a*) and yellowness (b*) on all three dates that assessments were made.

Two-way interactions

No significant interactions were found between grass type and iSeed. However, there were some significant interactions between grass species and seedbed fertiliser. For the measurement made on 1 November 2006 the addition of seedbed fertiliser had a less marked effect on the greenness (a*) scores for the red fescue in comparison with the other three grass

species. Looking at the effect of seedbed fertiliser on yellowness (b*) it was found to have a more marked effect on the smooth-stalked meadow-grass and the bentgrass (greater increase in yellowness).

For the interaction between fertiliser and iSeed only one significant effect was found. In this treatments with seedbed fertiliser had higher yellowness values than the combined fertiliser and iSeed treatment.

Rooting

A measurement of rooting depth and root mass (root dry weight) was made in February 2007 at the end of the trial. Data for the main effects are presented in Table 15 and those for the two-way interactions in Table 16.

Few significant differences were found among treatments or combinations of treatments for the root measurements. Indeed only one was found, a significant interaction between grass type and iSeed. The indication from this was that the rooting depth of the red fescue was slightly less and that for the smooth-stalked meadow-grass slightly more with iSeed. Please note that this really should be treated with some caution as root measurements tend to have high degrees of inherent variability and no other significant trends were found.

CONCLUSION

Variation among grass species and the positive effects of seedbed fertiliser followed expected trends. In brief the perennial ryegrass was the first and quickest to establish. The smooth-stalked meadow-grass established the slowest of the four grass species in the study. The inclusion of seedbed fertiliser increased growth and improved the appearance of the sward. In addition to these, expected, effects it was found that the iSeed treatment also significantly affected establishment and growth, improving the rate of both.

These effects were, on some occasions, more marked on the slower establishing grasses (red fescue, bentgrass and smooth-stalked meadow-grass). There were also a small number of measurements where the benefits of iSeed were significantly greater where seedbed fertiliser had not been included. However, on the majority of occasions positive effects from iSeed treatment were found for all grasses with and without the inclusion of seedbed fertiliser.

Overall, the results indicate that iSeed treatment has a positive effect on the growth and development of seedling turf. Therefore this treatment should help to reduce the risk of poor grass establishment under a range of different conditions.

Given the positive results for iSeed treatment on the establishment and early growth of different grass species further studies may be worthy of consideration. In this area we would suggest that an examination of iSeed under more challenging seedbed conditions was conducted. In this regard a similar study on a sand dominated rootzone is worthy of consideration.

TABLE 3

Early establishment of turf (germination) scores (1 = no shoots visible, 10 = plant at first cut stage) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 28 September to 16 October 2006 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				LSD
	Cezanne	Limousine	Manor	Sauvignon	
28/9/06	1.1	1.0	2.0	2.8	0.2
29/9/06	2.1	1.0	3.0	5.0	0.3
2/10/06	4.1	2.5	4.0	7.0	0.2
4/10/06	5.8	3.4	6.0	8.0	0.2
6/10/06	6.7	4.3	5.9	8.0	0.3
9/10/06	6.8	5.4	7.3	7.8	0.5
11/10/06	6.8	5.8	7.8	7.6	0.4
13/10/06	7.8	6.5	7.7	8.9	0.3
16/10/06	7.7	6.2	8.2	8.8	0.5

Date	iSeed		LSD
	Untreated	Treated	
28/9/06	1.8	1.6	0.2
29/9/06	2.8	2.7	<i>n.s.</i>
2/10/06	4.4	4.4	<i>n.s.</i>
4/10/06	5.9	5.8	<i>n.s.</i>
6/10/06	6.3	6.2	<i>n.s.</i>
9/10/06	6.8	6.8	<i>n.s.</i>
11/10/06	6.8	7.1	<i>n.s.</i>
13/10/06	7.6	7.8	0.2
16/10/06	7.5	7.9	0.3

Date	Fertiliser		LSD
	None	Seedbed	
28/9/06	1.7	1.8	<i>n.s.</i>
29/9/06	2.8	2.8	<i>n.s.</i>
2/10/06	4.5	4.3	<i>n.s.</i>
4/10/06	5.8	5.9	<i>n.s.</i>
6/10/06	6.1	6.4	0.2
9/10/06	6.6	7.0	0.3
11/10/06	6.7	7.3	0.3
13/10/06	7.4	8.0	0.2
16/10/06	7.4	8.0	0.3

TABLE 4

Early establishment of turf (germination) scores (1 = no shoots visible, 10 = plant at first cut stage) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 28 September to 16 October 2006 and show the two-way interactions between grass species and iSeed, grass species and seed bed fertiliser and iSeed and seed bed fertiliser.

28/9/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seed bed	
Untreated	1.2	1.0	2.0	3.0	None	1.0	1.0	2.0	2.7	Untreated	1.8	1.8	
Treated	1.0	1.0	2.0	2.5	Seedbed	1.2	1.0	2.0	2.8	Treated	1.6	1.7	
LSD		n.s.					n.s.					n.s.	
29/9/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	2.3	1.0	3.0	5.0	None	2.0	1.0	3.0	5.0	Untreated	2.8	2.9	
Treated	1.8	1.0	3.0	5.0	Seedbed	2.2	1.0	3.0	5.0	Treated	2.8	2.7	
LSD		n.s.					n.s.					n.s.	
2/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	4.0	2.7	4.0	7.0	None	4.0	2.8	4.0	7.0	Untreated	4.5	4.3	
Treated	4.2	2.3	4.0	7.0	Seedbed	4.2	2.2	4.0	7.0	Treated	4.4	4.3	
LSD		n.s.					0.3					n.s.	
4/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	5.8	3.7	6.0	8.0	None	5.8	3.2	6.0	8.0	Untreated	5.8	5.9	
Treated	5.8	3.2	6.0	8.0	Seedbed	5.8	3.7	6.0	8.0	Treated	5.7	5.8	
LSD		n.s.					n.s.					n.s.	
6/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	6.7	4.5	6.0	8.0	None	6.5	4.0	5.8	8.0	Untreated	6.1	6.5	
Treated	6.7	4.2	5.8	8.0	Seedbed	6.8	4.7	6.0	8.0	Treated	6.1	6.3	
LSD		n.s.					n.s.					n.s.	

TABLE 4 Continued

9/10/06						Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	6.7	5.5	7.3	7.8	None	6.7	5.3	6.8	7.5	Untreated	6.5	7.2	
Treated	6.8	5.3	7.2	7.7	Seedbed	6.8	5.5	7.7	8.0	Treated	6.7	6.8	
LSD		n.s.					n.s.				n.s.		
11/10/06						Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	6.5	5.7	7.7	7.5	None	6.5	5.3	7.5	7.3	Untreated	6.3	7.3	
Treated	7.0	5.8	7.8	7.7	Seedbed	7.0	6.2	8.0	7.8	Treated	7.0	7.2	
LSD		n.s.					n.s.				0.4		
13/10/06						Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	7.5	6.5	7.5	8.8	None	7.5	6.0	7.3	8.8	Untreated	7.2	8.0	
Treated	8.0	6.5	7.8	9.0	Seedbed	8.0	7.0	8.0	9.0	Treated	7.7	8.0	
LSD		n.s.					n.s.				0.3		
16/10/06						Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	7.3	6.2	8.0	8.7	None	7.5	5.8	7.5	8.7	Untreated	7.1	8.0	
Treated	8.0	6.2	8.3	9.0	Seedbed	7.8	6.5	8.8	9.0	Treated	7.7	8.1	
LSD		n.s.					n.s.				n.s.		

TABLE 5

Reflectance ratio values for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for measurements made from 29 September to 4 December 2006 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				LSD
	Cezanne	Limousine	Manor	Sauvignon	
29/9/06	2.0	1.4	2.3	3.3	<i>n.s.</i>
2/10/06	21.3	6.4	29.1	36.6	3.2
6/10/06	25.3	4.1	29.4	50.5	7.2
9/10/06	34.9	9.8	35.4	61.2	6.2
13/10/06	57.8	37.8	54.5	76.7	7.2
16/10/06	71.8	60.9	69.3	83.5	3.6
19/10/06	71.2	66.3	68.5	74.6	5.6
23/10/06	79.1	73.3	75.2	84.1	3.0
1/11/06	82.7	75.8	82.8	85.3	3.8
9/11/06	75.9	74.8	80.6	72.9	<i>n.s.</i>
15/11/06	71.9	64.0	72.2	69.1	3.1
22/11/06	72.9	65.3	74.3	70.6	2.6
28/11/06	68.5	61.5	70.8	67.2	3.6
4/12/06	68.0	59.3	70.2	68.1	3.1

Date	iSeed		LSD
	Untreated	Treated	
29/9/06	2.0	2.5	<i>n.s.</i>
2/10/06	24.3	22.4	<i>n.s.</i>
6/10/06	29.1	25.5	<i>n.s.</i>
9/10/06	36.0	34.7	<i>n.s.</i>
13/10/06	55.5	57.8	<i>n.s.</i>
16/10/06	70.0	72.8	2.5
19/10/06	68.9	71.3	<i>n.s.</i>
23/10/06	76.8	79.1	2.1
1/11/06	79.3	84.0	2.7
9/11/06	76.8	75.3	<i>n.s.</i>
15/11/06	67.1	71.5	2.2
22/11/06	68.6	72.9	1.8
28/11/06	64.5	69.4	2.5
4/12/06	63.8	69.0	2.2

Date	Fertiliser		LSD
	None	Seedbed	
29/9/06	2.0	2.5	<i>n.s.</i>
2/10/06	22.6	24.1	<i>n.s.</i>
6/10/06	22.2	32.5	5.1
9/10/06	28.3	42.4	4.4
13/10/06	50.3	63.0	5.1
16/10/06	66.3	76.5	2.5
19/10/06	67.4	72.8	3.9
23/10/06	75.6	80.2	2.1
1/11/06	78.2	85.0	2.7
9/11/06	79.2	72.9	<i>n.s.</i>
15/11/06	66.8	71.8	2.2
22/11/06	68.8	72.8	1.8
28/11/06	64.9	69.1	2.5
4/12/06	63.8	69.0	2.2

TABLE 6

Reflectance ratio values for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 29 September to 4 December 2006 and show the two-way interactions between grass species and iSeed, grass species and Seedbed fertiliser and iSeed and Seedbed fertiliser.

29/9/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	2.7	1.3	1.7	2.3	None	1.0	1.5	1.2	4.5	Untreated	1.5	2.5	
Treated	1.3	1.5	2.8	4.3	Seedbed	3.0	1.3	3.3	2.2	Treated	2.6	2.4	
LSD		n.s.					n.s.					n.s.	
2/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	23.2	6.0	30.7	37.5	None	22.3	6.7	25.3	36.0	Untreated	22.7	26.0	
Treated	19.5	6.8	27.5	35.7	Seedbed	20.3	6.2	32.8	37.2	Treated	22.5	22.3	
LSD		n.s.					4.6					n.s.	
6/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	28.8	3.3	32.2	52.2	None	23.7	4.3	14.2	46.5	Untreated	21.2	37.1	
Treated	21.8	4.8	26.7	48.8	Seedbed	27.0	3.8	44.7	54.5	Treated	23.2	27.9	
LSD		n.s.					10.2					7.2	
9/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	36.2	12.2	34.3	61.2	None	34.2	4.0	18.5	56.5	Untreated	25.7	46.2	
Treated	33.7	7.3	36.5	61.3	Seedbed	35.7	15.5	52.3	66.0	Treated	30.9	38.5	
LSD		n.s.					8.8					6.2	
13/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	59.2	36.8	50.3	75.8	None	56.5	29.5	42.7	72.5	Untreated	46.9	64.2	
Treated	56.3	38.7	58.7	77.5	Seedbed	59.0	46.0	66.3	80.8	Treated	53.7	61.9	
LSD		n.s.					10.2					n.s.	

TABLE 6 Continued

16/10/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	70.7	59.8	67.2	82.2	None	69.8	54.0	60.8	80.5	Untreated	63.9	76.0	
Treated	73.0	62.0	71.5	84.8	Seedbed	73.8	67.8	77.8	86.5	Treated	68.7	77.0	
LSD		n.s.					5.0					n.s.	
19/10/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	69.3	67.2	67.8	71.3	None	70.3	63.8	60.8	74.7	Untreated	66.2	71.7	
Treated	73.0	65.3	69.2	77.8	Seedbed	72.0	68.7	76.2	74.5	Treated	68.7	74.0	
LSD		n.s.					7.9					n.s.	
23/10/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	77.3	71.3	75.0	83.3	None	78.5	69.8	71.2	83.0	Untreated	74.3	79.3	
Treated	80.8	75.3	75.3	84.8	Seedbed	79.7	76.8	79.2	85.2	Treated	77.0	81.2	
LSD		n.s.					n.s.					n.s.	
1/11/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	79.7	72.7	79.8	84.8	None	81.5	69.2	77.5	84.7	Untreated	75.3	83.3	
Treated	85.7	78.8	85.8	85.7	Seedbed	83.8	82.3	88.2	85.8	Treated	81.2	86.8	
LSD		n.s.					5.4					n.s.	
9/11/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	81.8	72.3	76.3	76.5	None	77.2	68.8	86.8	84.0	Untreated	75.5	78.0	
Treated	70.0	77.2	84.8	69.3	Seedbed	74.7	80.7	74.3	61.8	Treated	82.9	67.8	
LSD		n.s.					n.s.					n.s.	

TABLE 6 Continued

15/11/06												
Grass					Grass					Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	70.2	60.5	70.7	67.2	None	69.5	60.2	67.7	69.7	Untreated	64.3	70.0
Treated	73.7	67.5	73.7	71.0	Seedbed	74.3	67.8	76.7	68.5	Treated	69.3	73.7
LSD		n.s.					4.4				n.s.	
22/11/06												
Grass					Grass					Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	71.2	62.5	72.2	68.7	None	70.2	62.7	70.7	71.5	Untreated	66.3	71.0
Treated	74.7	68.0	76.3	72.5	Seedbed	75.7	67.8	77.8	69.7	Treated	71.3	74.5
LSD		n.s.					3.6				n.s.	
28/11/06												
Grass					Grass					Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	66.7	57.7	68.5	65.3	None	66.2	58.0	66.7	68.7	Untreated	62.7	66.4
Treated	70.3	65.3	73.0	69.0	Seedbed	70.8	65.0	74.8	65.7	Treated	67.1	71.8
LSD		n.s.					5.1				n.s.	
4/12/06												
Grass					Grass					Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	65.2	55.7	68.2	66.2	None	65.2	56.0	65.3	68.8	Untreated	60.9	66.7
Treated	70.8	63.0	72.2	70.0	Seedbed	70.8	62.7	75.0	67.3	Treated	66.8	71.3
LSD		n.s.					4.3				n.s.	

TABLE 7

Chlorophyll values for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for measurements made from 29 September to 4 December 2006 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				LSD
	Cezanne	Limousine	Manor	Sauvignon	
29/9/06	67.8	65.5	67.4	68.7	<i>n.s.</i>
2/10/06	71.0	64.2	76.3	86.6	4.0
6/10/06	89.3	71.4	95.1	117.2	8.0
9/10/06	104.7	81.2	104.5	149.2	6.1
13/10/06	148.5	111.2	139.4	206.8	13.1
16/10/06	155.6	116.8	144.0	232.6	10.1
20/10/06	166.3	132.2	150.2	204.6	14.4
23/10/06	232.4	204.8	202.8	302.6	26.6
1/11/06	183.5	156.7	170.4	190.0	11.8
9/11/06	138.1	144.2	130.7	142.8	<i>n.s.</i>
15/11/06	183.5	157.6	189.3	177.0	12.8
22/11/06	165.8	138.8	169.7	160.2	12.0
28/11/06	156.2	132.5	162.9	159.2	15.9
4/12/06	181.1	151.2	178.6	186.5	17.3

Date	iSeed		LSD
	Untreated	Treated	
29/9/06	67.0	67.7	<i>n.s.</i>
2/10/06	74.8	74.3	<i>n.s.</i>
6/10/06	94.0	92.5	<i>n.s.</i>
9/10/06	110.3	109.5	<i>n.s.</i>
13/10/06	145.3	157.7	9.3
16/10/06	153.8	170.7	7.2
20/10/06	154.8	171.9	10.2
23/10/06	222.5	248.8	18.8
1/11/06	164.6	185.7	8.4
9/11/06	141.1	136.8	<i>n.s.</i>
15/11/06	161.6	192.1	9.0
22/11/06	149.1	168.2	8.5
28/11/06	140.7	164.7	11.2
4/12/06	159.5	189.1	12.2

Date	Fertiliser		LSD
	None	Seedbed	
29/9/06	66.1	68.5	<i>n.s.</i>
2/10/06	73.5	75.6	<i>n.s.</i>
6/10/06	88.2	98.3	5.7
9/10/06	102.3	117.5	4.3
13/10/06	134.5	168.5	9.3
16/10/06	138.6	185.8	7.2
20/10/06	148.3	178.4	10.2
23/10/06	217.5	253.8	18.8
1/11/06	163.2	187.1	8.4
9/11/06	140.5	137.4	<i>n.s.</i>
15/11/06	165.1	188.6	9.0
22/11/06	148.2	169.1	8.5
28/11/06	142.3	163.1	11.2
4/12/06	158.8	189.8	12.2

TABLE 8

Chlorophyll values for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 29 September to 4 December 2006 and show the two-way interactions between grass species and iSeed, grass species and Seedbed fertiliser and iSeed and Seedbed fertiliser.

29/9/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	67.0	65.2	68.2	67.5	None	65.8	66.5	64.8	67.3	Untreated	65.4	68.5	
Treated	68.5	65.8	66.7	69.8	Seedbed	69.7	64.5	70.0	70.0	Treated	66.8	68.6	
LSD		n.s.					n.s.					n.s.	
2/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	71.2	63.7	78.5	85.7	None	69.8	64.8	74.2	85.0	Untreated	73.2	76.3	
Treated	70.8	64.7	74.2	87.5	Seedbed	72.2	63.5	78.5	88.2	Treated	73.8	74.8	
LSD		n.s.					n.s.					n.s.	
6/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	88.7	73.0	100.0	114.5	None	88.3	70.2	84.7	109.7	Untreated	87.7	100.4	
Treated	90.0	69.8	90.2	119.8	Seedbed	90.3	72.7	105.5	124.7	Treated	88.7	96.2	
LSD		n.s.					n.s.					n.s.	
9/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	102.0	83.7	107.0	148.5	None	102.5	75.5	92.5	138.8	Untreated	101.7	118.8	
Treated	107.3	78.7	102.0	150.0	Seedbed	106.8	86.8	116.5	159.7	Treated	102.9	116.1	
LSD		n.s.					8.6					n.s.	
13/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	145.2	109.0	140.2	186.8	None	145.0	97.2	114.8	181.2	Untreated	123.2	167.3	
Treated	151.8	113.5	138.7	226.8	Seedbed	152.0	125.3	164.0	232.5	Treated	145.8	169.6	
LSD		18.5					18.5					13.1	

TABLE 8 Continued

16/10/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	148.0	111.8	144.5	210.8	None	146.5	99.3	112.8	195.8	Untreated	128.1	179.5
Treated	163.2	121.7	143.5	254.3	Seedbed	164.7	134.2	175.2	269.3	Treated	149.2	192.2
LSD		14.3					14.3				n.s.	
20/10/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	160.2	123.8	144.3	191.0	None	162.7	112.8	124.5	193.2	Untreated	137.7	171.9
Treated	172.5	140.7	156.2	218.2	Seedbed	170.0	151.7	176.0	216.0	Treated	158.8	184.9
LSD		n.s.					20.4				n.s.	
23/10/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	215.2	190.8	196.5	287.5	None	220.3	196.8	165.5	287.2	Untreated	203.6	241.4
Treated	249.7	218.7	209.0	317.7	Seedbed	244.5	212.7	240.0	318.0	Treated	231.3	266.2
LSD		n.s.					n.s.				n.s.	
1/11/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	172.2	143.7	160.7	182.0	None	172.8	138.3	152.5	189.2	Untreated	149.7	179.6
Treated	194.8	169.7	180.2	198.0	Seedbed	194.2	175.0	188.3	190.8	Treated	176.8	194.6
LSD		n.s.					16.7				n.s.	
9/11/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	138.5	142.8	135.8	147.2	None	134.2	147.2	137.2	143.3	Untreated	140.8	141.3
Treated	137.7	145.5	125.5	138.5	Seedbed	142.0	141.2	124.2	142.3	Treated	140.1	133.5
LSD		n.s.					n.s.				n.s.	

TABLE 8 Continued

15/11/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	166.7	134.7	179.2	166.0	None	170.8	143.5	167.0	179.0	Untreated	151.5	171.8	
Treated	200.3	180.5	199.5	188.0	Seedbed	196.2	171.7	211.7	175.0	Treated	178.7	205.5	
LSD		<i>n.s.</i>					<i>18.1</i>					<i>n.s.</i>	
22/11/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	153.8	124.8	162.3	155.5	None	153.8	129.0	151.3	158.7	Untreated	140.6	157.7	
Treated	177.8	152.8	177.0	165.0	Seedbed	177.8	148.7	188.0	161.8	Treated	155.8	180.5	
LSD		<i>n.s.</i>					<i>n.s.</i>					<i>n.s.</i>	
28/11/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	144.7	116.5	154.5	147.2	None	140.5	124.5	142.5	161.8	Untreated	132.5	148.9	
Treated	167.7	148.5	171.3	171.3	Seedbed	171.8	140.5	183.3	156.7	Treated	152.2	177.2	
LSD		<i>n.s.</i>					<i>22.4</i>					<i>n.s.</i>	
4/12/06		Grass				Fertiliser	Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	170.7	131.3	160.7	175.5	None	170.7	127.2	152.8	184.7	Untreated	145.0	174.1	
Treated	191.5	171.0	196.5	197.5	Seedbed	191.5	175.2	204.3	188.3	Treated	172.7	205.6	
LSD		<i>n.s.</i>					<i>24.4</i>					<i>n.s.</i>	

TABLE 9

Turf quality (1 = poor, 10 = good) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 2 October 2006 to 8 January 2007 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				LSD
	Cezanne	Limousine	Manor	Sauvignon	
2/10/06	4.8	1.7	7.9	6.8	0.3
9/10/06	4.9	3.6	7.4	6.5	0.6
16/10/06	4.8	3.4	6.3	5.7	0.7
19/10/06	4.2	3.5	6.1	4.3	0.6
24/10/06	4.8	2.8	5.6	4.8	0.7
31/10/06	5.3	3.6	6.7	5.2	0.8
9/11/06	5.7	3.1	7.0	6.0	0.6
15/11/06	5.2	2.8	6.3	3.8	0.8
22/11/06	5.3	3.3	6.4	3.9	0.8
28/11/06	5.3	3.1	6.4	4.3	0.6
4/12/06	6.3	3.7	7.5	4.7	0.8
8/1/07	4.8	2.9	6.8	4.8	0.7

Date	iSeed		LSD
	Untreated	Treated	
2/10/06	5.5	5.1	0.2
9/10/06	5.7	5.5	<i>n.s.</i>
16/10/06	4.7	5.4	0.5
19/10/06	4.1	4.9	0.4
24/10/06	3.9	5.1	0.5
31/10/06	4.6	5.8	0.6
9/11/06	5.1	5.8	0.5
15/11/06	3.7	5.4	0.6
22/11/06	4.1	5.4	0.5
28/11/06	4.0	5.6	0.4
4/12/06	4.8	6.3	0.5
8/1/07	4.2	5.5	0.5

Date	Fertiliser		LSD
	None	Seedbed	
2/10/06	5.3	5.3	<i>n.s.</i>
9/10/06	5.3	5.9	0.5
16/10/06	4.4	5.7	0.5
19/10/06	3.8	5.2	0.4
24/10/06	3.6	5.4	0.5
31/10/06	4.6	5.8	0.6
9/11/06	5.0	5.9	0.5
15/11/06	3.9	5.2	0.6
22/11/06	4.1	5.4	0.5
28/11/06	4.3	5.3	0.4
4/12/06	5.0	6.1	0.5
8/1/07	4.3	5.3	0.5

TABLE 10

Turf quality (1 = poor, 10 = good) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 2 October 2006 to 8 January 2007 and show the two-way interactions between grass species and iSeed, grass species and Seedbed fertiliser and iSeed and Seedbed fertiliser.

2/10/06		Grass				Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	4.8	2.3	7.8	6.8	None	4.8	1.8	7.8	6.8	Untreated	5.5	5.4
Treated	4.8	1.0	8.0	6.7	Seedbed	4.8	1.5	8.0	6.7	Treated	5.2	5.1
LSD		0.4					n.s.				n.s.	
9/10/06		Grass				Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	4.7	4.0	7.3	6.7	None	4.8	3.2	7.0	6.3	Untreated	5.5	5.8
Treated	5.2	3.2	7.5	6.3	Seedbed	5.0	4.0	7.8	6.7	Treated	5.2	5.9
LSD		n.s.					n.s.				n.s.	
16/10/06		Grass				Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	4.3	3.2	6.0	5.3	None	4.7	2.7	5.2	5.0	Untreated	3.8	5.6
Treated	5.3	3.7	6.5	6.0	Seedbed	5.0	4.2	7.3	6.3	Treated	4.9	5.8
LSD		n.s.					n.s.				n.s.	
19/10/06		Grass				Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	3.7	3.0	5.8	4.0	None	4.2	2.7	4.8	3.7	Untreated	3.3	4.9
Treated	4.7	4.0	6.3	4.5	Seedbed	4.2	4.3	7.3	4.8	Treated	4.3	5.4
LSD		n.s.					0.9				n.s.	
24/10/06		Grass				Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	4.2	2.3	4.8	4.2	None	4.2	1.7	4.0	4.5	Untreated	2.8	5.0
Treated	5.3	3.3	6.3	5.5	Seedbed	5.3	4.0	7.2	5.2	Treated	4.4	5.8
LSD		n.s.					1.0				n.s.	

TABLE 10 Continued

31/10/06		Grass				Fertiliser	Grass				iSeed	Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	4.7	3.2	6.0	4.7	None	4.8	3.0	5.8	4.8	Untreated	3.9	5.3	
Treated	6.0	4.0	7.3	5.7	Seedbed	5.8	4.2	7.5	5.5	Treated	5.3	6.2	
LSD		n.s.					n.s.					n.s.	
9/11/06		Grass				Fertiliser	Grass				iSeed	Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	5.5	3.0	6.3	5.7	None	5.3	2.3	6.3	5.8	Untreated	4.7	5.6	
Treated	5.8	3.2	7.7	6.3	Seedbed	6.0	3.8	7.7	6.2	Treated	5.3	6.3	
LSD		n.s.					n.s.					n.s.	
15/11/06		Grass				Fertiliser	Grass				iSeed	Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	4.2	2.2	5.5	3.0	None	4.5	2.0	5.3	3.7	Untreated	2.9	4.5	
Treated	6.2	3.5	7.2	4.7	Seedbed	5.8	3.7	7.3	4.0	Treated	4.8	5.9	
LSD		n.s.					n.s.					n.s.	
22/11/06		Grass				Fertiliser	Grass				iSeed	Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	4.3	2.8	5.8	3.5	None	4.7	2.5	5.3	3.8	Untreated	3.3	5.0	
Treated	6.3	3.8	7.0	4.3	Seedbed	6.0	4.2	7.5	4.0	Treated	4.9	5.8	
LSD		n.s.					n.s.					n.s.	
28/11/06		Grass				Fertiliser	Grass				iSeed	Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	4.5	2.2	5.7	3.7	None	4.7	2.7	5.5	4.3	Untreated	3.4	4.6	
Treated	6.2	4.0	7.2	5.0	Seedbed	6.0	3.5	7.3	4.3	Treated	5.2	6.0	
LSD		n.s.					0.9					n.s.	

TABLE 10 Continued

4/12/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	5.3	2.8	7.2	3.8	None	5.7	3.2	6.5	4.5	Untreated	4.2	5.4
Treated	7.3	4.5	7.8	5.5	Seedbed	7.0	4.2	8.5	4.8	Treated	5.8	6.8
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
8/1/07		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	4.0	2.3	6.3	4.2	None	4.0	2.7	5.8	4.8	Untreated	3.7	4.8
Treated	5.5	3.5	7.3	5.5	Seedbed	5.5	3.2	7.8	4.8	Treated	5.0	5.9
LSD		<i>n.s.</i>					<i>1.0</i>				<i>n.s.</i>	

TABLE 11

Sward height (mm) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 16 October 2006 to 29 January 2007 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				LSD
	Cezanne	Limousine	Manor	Sauvignon	
16/10/06	30.2	14.6	20.8	53.4	2.8
23/10/06	25.7	13.4	21.8	49.0	2.5
30/10/06	30.0	17.8	23.9	41.7	4.7
6/11/06	25.3	13.2	22.7	34.1	2.6
13/11/06	23.2	18.8	21.7	23.8	<i>n.s.</i>
20/11/06	21.7	13.9	21.3	26.8	2.0
27/11/06	19.6	12.4	19.1	24.7	1.7
5/12/06	19.5	12.2	18.4	23.2	2.0
11/12/06	20.3	11.8	19.7	23.8	1.9
18/12/06	20.2	11.3	19.8	22.8	1.8
8/1/07	18.3	10.8	19.3	20.3	1.5
15/1/07	19.6	10.8	19.8	21.2	1.5
22/1/07	18.5	11.0	20.7	21.1	1.5
29/1/07	19.9	11.0	22.3	23.8	1.8

Date	iSeed		LSD
	Untreated	Treated	
16/10/06	28.6	30.9	2.0
23/10/06	25.8	29.2	1.8
30/10/06	27.4	29.3	<i>n.s.</i>
6/11/06	22.8	24.8	1.8
13/11/06	21.5	22.3	<i>n.s.</i>
20/11/06	19.8	22.0	1.4
27/11/06	17.4	20.5	1.2
5/12/06	17.4	19.2	1.4
11/12/06	17.9	19.9	1.3
18/12/06	17.4	19.6	1.2
8/1/07	16.4	17.9	1.0
15/1/07	16.7	19.0	1.1
22/1/07	16.7	19.0	1.1
29/1/07	18.4	20.1	1.2

Date	Fertiliser		LSD
	None	Seedbed	
16/10/06	26.4	33.1	2.0
23/10/06	24.8	30.2	1.8
30/10/06	24.9	31.8	3.4
6/11/06	21.8	25.8	1.8
13/11/06	20.9	22.8	<i>n.s.</i>
20/11/06	19.5	22.3	1.4
27/11/06	17.4	20.5	1.2
5/12/06	16.5	20.1	1.4
11/12/06	17.4	20.4	1.3
18/12/06	17.1	19.9	1.2
8/1/07	15.9	18.4	1.0
15/1/07	17.0	18.7	1.1
22/1/07	16.7	19.0	1.1
29/1/07	18.1	20.4	1.2

TABLE 12

Sward height (mm) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for assessments made from 16 October 2006 to 29 January 2007 and show the two-way interactions between grass species and iSeed, grass species and Seedbed fertiliser and iSeed and Seedbed fertiliser.

16/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	29.8	14.7	19.0	50.8	None	29.2	12.7	17.3	46.5	Untreated	25.3	31.9	
Treated	30.5	14.5	22.7	56.0	Seedbed	31.2	16.5	24.3	60.3	Treated	27.6	34.3	
LSD		n.s.					4.0					n.s.	
23/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	25.2	13.0	19.8	45.0	None	24.8	11.2	18.0	45.0	Untreated	23.3	28.3	
Treated	26.2	13.8	23.8	53.0	Seedbed	26.5	15.7	25.7	53.0	Treated	26.3	32.2	
LSD		3.5					3.5					n.s.	
30/10/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	27.3	19.2	23.2	39.8	None	27.7	13.2	19.7	39.2	Untreated	23.5	31.3	
Treated	32.7	16.5	24.7	43.5	Seedbed	32.3	22.5	28.2	44.2	Treated	26.0	32.3	
LSD		n.s.					n.s.					n.s.	
6/11/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	25.7	11.2	22.5	32.0	None	24.8	11.7	18.2	32.5	Untreated	20.6	25.1	
Treated	25.0	15.2	22.8	36.2	Seedbed	25.8	14.7	27.2	35.7	Treated	23.0	26.6	
LSD		n.s.					3.7					n.s.	
13/11/06		Grass				Grass				Fertiliser			
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed	
Untreated	22.2	18.3	23.2	22.3	None	22.2	16.8	19.5	25.2	Untreated	21.4	21.6	
Treated	24.2	19.3	20.2	25.3	Seedbed	24.2	20.8	23.8	22.5	Treated	20.4	24.1	
LSD		n.s.					n.s.					n.s.	

TABLE 12 Continued

20/11/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	21.3	12.2	20.8	25.0	None	20.7	12.5	19.2	25.5	Untreated	18.3	21.4
Treated	22.0	15.7	22.0	28.5	Seedbed	22.7	15.3	23.3	28.0	Treated	20.7	23.3
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
27/11/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	18.3	10.5	18.2	22.5	None	17.8	10.8	17.7	23.3	Untreated	15.8	18.9
Treated	20.8	14.3	20.0	26.8	Seedbed	21.3	14.0	20.5	26.0	Treated	19.0	22.0
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
5/12/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	19.2	10.8	17.8	21.8	None	17.5	10.3	16.3	21.8	Untreated	15.5	19.3
Treated	19.8	13.5	19.0	24.5	Seedbed	21.5	14.0	20.5	24.5	Treated	17.5	20.9
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
11/12/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	19.8	10.5	19.0	22.3	None	18.8	10.3	17.8	22.5	Untreated	16.4	19.4
Treated	20.8	13.2	20.3	25.2	Seedbed	21.8	13.3	21.5	25.0	Treated	18.3	21.4
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
18/12/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	19.2	10.5	18.5	21.3	None	18.8	10.3	17.5	21.7	Untreated	16.1	18.7
Treated	21.2	12.2	21.0	24.2	Seedbed	21.5	12.3	22.0	23.8	Treated	18.1	21.2
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	

TABLE 12 Continued

8/1/07		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	17.8	9.7	18.3	19.8	None	17.2	9.2	18.0	19.3	Untreated	14.9	17.9
Treated	18.8	11.8	20.2	20.7	Seedbed	19.5	12.3	20.5	21.2	Treated	16.9	18.8
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
15/1/07		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	19.3	9.3	18.7	19.5	None	19.2	9.8	18.5	20.3	Untreated	16.0	17.4
Treated	19.8	12.2	21.0	22.8	Seedbed	20.0	11.7	21.2	22.0	Treated	17.9	20.0
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
22/1/07		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	17.7	9.5	19.3	20.2	None	17.7	9.2	19.3	20.5	Untreated	15.9	17.4
Treated	19.3	12.5	22.0	22.0	Seedbed	19.3	12.8	22.0	21.7	Treated	17.4	20.5
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	
29/1/07		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	20.0	10.3	21.3	22.0	None	19.0	9.3	21.2	23.0	Untreated	17.4	19.4
Treated	19.8	11.7	23.3	25.5	Seedbed	20.8	12.7	23.5	24.5	Treated	18.8	21.3
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	

TABLE 13

Colour greenness (a*) and yellowness (b*) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for measurements made in November and December 2006 and January 2007 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				LSD
	Cezanne	Limousine	Manor	Sauvignon	
Greenness (a*)					
1/11/06	-12.6	-10.5	-13.6	-13.4	0.8
4/12/06	-8.5	-6.7	-10.6	-7.9	0.9
10/1/07	-7.6	-5.6	-9.7	-8.9	0.7
Yellowness (b*)					
1/11/06	20.5	17.3	22.2	23.0	0.9
4/12/06	19.2	16.0	20.6	16.9	0.6
10/1/07	16.5	13.4	16.5	15.4	0.8
		iSeed			
	Untreated	Treated	LSD		
Greenness (a*)					
1/11/06	-12.0	-13.0	0.6		
4/12/06	-7.7	-9.1	0.6		
10/1/07	-7.4	-8.5	0.5		
Yellowness (b*)					
1/11/06	20.8	20.7	n.s.		
4/12/06	18.3	18.0	n.s.		
10/1/07	15.3	15.6	n.s.		
		Fertiliser			
	None	Seedbed	LSD		
Greenness (a*)					
1/11/06	-11.4	-13.6	0.6		
4/12/06	-7.7	-9.1	0.6		
10/1/07	-7.4	-8.5	0.5		
Yellowness (b*)					
1/11/06	19.8	21.7	0.6		
4/12/06	17.6	18.7	0.4		
10/1/07	14.8	16.1	0.5		

TABLE 14

Colour greenness (a*) and yellowness (b*) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for measurements made in November and December 2006 and January 2007 and show the two-way interactions between grass species and iSeed, grass species and Seedbed fertiliser and iSeed and Seedbed fertiliser.

Greenness (a*)													
1/11/06													
iSeed	Grass				Fertiliser	Grass				iSeed	Fertiliser		
	Cezanne	Limousine	Manor	Sauvignon		Cezanne	Limousine	Manor	Sauvignon		None	Seedbed	
Untreated	-12.1	-9.9	-12.9	-13.2	None	-12.1	-9.1	-11.8	-12.7	Untreated	-10.8	-13.3	
Treated	-13.1	-11.0	-14.3	-13.6	Seedbed	-13.1	-11.9	-15.3	-14.1	Treated	-12.1	-13.9	
LSD		n.s.					1.1					n.s.	
4/12/06													
iSeed	Grass				Fertiliser	Grass				iSeed	Fertiliser		
	Cezanne	Limousine	Manor	Sauvignon		Cezanne	Limousine	Manor	Sauvignon		None	Seedbed	
Untreated	-7.7	-5.7	-10.0	-7.3	None	-7.9	-5.5	-9.9	-7.6	Untreated	-6.8	-8.5	
Treated	-9.2	-7.7	-11.2	-8.5	Seedbed	-9.0	-7.9	-11.2	-8.2	Treated	-8.6	-9.7	
LSD		n.s.					n.s.					n.s.	
10/1/07													
iSeed	Grass				Fertiliser	Grass				iSeed	Fertiliser		
	Cezanne	Limousine	Manor	Sauvignon		Cezanne	Limousine	Manor	Sauvignon		None	Seedbed	
Untreated	-6.6	-5.0	-9.3	-8.6	None	-7.0	-5.1	-8.8	-8.7	Untreated	-6.9	-7.9	
Treated	-8.6	-6.2	-10.1	-9.1	Seedbed	-8.3	-6.0	-10.6	-9.0	Treated	-7.9	-9.1	
LSD		n.s.					n.s.					n.s.	
Yellowness (b*)													
1/11/06													
iSeed	Grass				Fertiliser	Grass				iSeed	Fertiliser		
	Cezanne	Limousine	Manor	Sauvignon		Cezanne	Limousine	Manor	Sauvignon		None	Seedbed	
Untreated	20.8	17.6	21.8	22.9	None	20.2	16.4	20.5	22.1	Untreated	19.8	21.8	
Treated	20.2	17.1	22.6	23.0	Seedbed	20.8	18.3	23.9	23.8	Treated	19.8	21.6	
LSD		n.s.					1.2					n.s.	

TABLE 14 Continued

4/12/06		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	19.5	16.4	20.7	16.5	None	18.7	15.0	19.8	16.8	Untreated	17.4	19.1
Treated	18.8	15.6	20.4	17.2	Seedbed	19.6	17.0	21.4	16.9	Treated	17.7	18.4
LSD		<i>n.s.</i>					<i>0.9</i>				<i>0.6</i>	
10/1/07		Grass				Fertiliser	Grass				Fertiliser	
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	16.2	13.5	16.2	15.2	None	15.9	12.7	15.6	15.1	Untreated	14.8	15.8
Treated	16.8	13.3	16.8	15.6	Seedbed	17.1	14.1	17.4	15.7	Treated	14.9	16.4
LSD		<i>n.s.</i>					<i>n.s.</i>				<i>n.s.</i>	

TABLE 15

Rooting depth (mm) and root dry mass (g) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for measurements made on 8 and 9 February 2007 and show the main effects of grass species, iSeed seed coating treatment and seedbed fertiliser.

Date	Grass				
	Cezanne	Limousine	Manor	Sauvignon	LSD
Rooting depth (mm)					
8/2/07	21.5	19.7	21.8	22.3	<i>n.s.</i>
Root dry mass (g)					
9/2/07	0.54	0.51	0.53	0.56	<i>n.s.</i>
	iSeed				
	Untreated	Treated		LSD	
Rooting depth (mm)					
8/2/07	21.8	20.9		<i>n.s.</i>	
Root mass (g)					
9/2/07	0.51	0.56		<i>n.s.</i>	
	Fertiliser				
	None	Seedbed		LSD	
Rooting depth (mm)					
8/2/07	21.0	21.7		<i>n.s.</i>	
Root dry mass (g)					
9/2/07	0.51	0.56		<i>n.s.</i>	

TABLE 16

Rooting depth (mm) and root mass, dry weight (g) for the 21 September 2006 sown DLF-Trifolium trial to examine the effects of iSeed seed coating treatment on the germination and establishment of four amenity grass species. The data presented are for measurements made on 8 and 9 February 2007 and show the two-way interactions between grass species and iSeed, grass species and Seedbed fertiliser and iSeed and Seedbed fertiliser.

Rooting depth (mm)												
8/2/07	Grass					Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	23.8	17.4	22.7	23.2	None	19.7	19.8	21.9	22.8	Untreated	21.1	22.4
Treated	19.3	22.0	20.8	21.5	Seedbed	23.4	19.7	21.7	21.9	Treated	20.9	20.9
LSD		3.2					n.s.				n.s.	
Root dry mass (g)												
9/2/07	Grass					Grass				Fertiliser		
iSeed	Cezanne	Limousine	Manor	Sauvignon	Fertiliser	Cezanne	Limousine	Manor	Sauvignon	iSeed	None	Seedbed
Untreated	0.59	0.49	0.49	0.49	None	0.51	0.46	0.57	0.51	Untreated	0.44	0.59
Treated	0.50	0.52	0.58	0.63	Seedbed	0.58	0.56	0.50	0.60	Treated	0.58	0.53
LSD		n.s.					n.s.				n.s.	

QUALITY STATEMENT

I confirm that this report is a true representation of the original data collected and that the Standard Operating Procedures referred to in the STRI Manual of Standard Operating Procedures, and those relevant to data collection, data preparation, archiving of data and preparation of reports have been implemented in full.

Signed:

F M E Crossley
(Study Director)

Date:

Report Checked by:

Dr A J Newell
(Head of Turfgrass Biology STRI)

Date:

Final version checked and reviewed by:

Dr A J Newell
(Head of Turfgrass Biology STRI)

Date:

APPENDIX 1